

possession of their nests, or whether they had merely sought shelter in their deserted habitations, I am not prepared to say. As the millepedes are considered to feed on vegetables, it is possible that they had taken possession of these abodes to feed at leisure on their structure. I am the more inclined to this opinion from the worm-eaten appearance of some of the deserted nests.

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Descriptions of New Species of the Dipterous Insects of New Guinea. By FRANCIS WALKER, F.L.S.

[Read March 3, 1864.]

Fam. MYCETOPHILIDÆ, *Haliday*.

Gen. SCIARA, *Meigen*.

1. SCIARA VARIPES. *Fem.* Testacea, antennis nigricantibus basi testaceis, pedibus longiusculis, tarsis nigris, alis cinereis.

*Female.* Testaceous. Antennæ blackish, testaceous towards the base, not longer than the thorax. Abdomen a little longer than the thorax. Legs slender, rather long; tarsi black. Wings cinereous; veins black; radial vein extending a little beyond the fork of the subapical vein. Length of the body 2 lines; of the wings 6 lines.

2. SCIARA? FILIPES. *Mas.* Testacea, gracilis, abdomine attenuato apicem versus nigro, pedibus longissimis, tibiis apice tarsisque fusciscentibus, alis cinereis.

*Male.* Testaceous, slender. Abdomen attenuated, black towards the tip, more than twice as long as the thorax. Legs slender, extremely long; tarsi and tips of the tibiæ brownish. Wings cinereous; veins brownish; radial vein ending at a little before the fork of the subapical vein; cubital vein very near the costa. Length of the body 3 lines; of the wings 7 lines.

The specimen here described is mutilated, and therefore can hardly be characterized as a new genus.

Fam. CULICIDÆ, *Haliday*.

Gen. MEGARHINA, *Desv.*

3. MEGARHINA INORNATA. *Mas.* Fusca, palpis purpureis argenteo bifasciatis, antennis nigris, pectore femoribusque argenteis, abdomine lurido apicem versus nigro, pedibus non fasciatis, alis fusciscenti-cinereis.

*Male.* Brown. Palpi purple, with two silvery bands, longer than the thorax. Rostrum black, bent, nearly as long as the abdomen. Antennæ black. Pectus silvery cinereous. Abdomen lurid, black towards the tip, where it is furnished with diverging lateral black hairs. Legs setulose, without bands; femora silvery cinereous, except towards the tips. Wings brownish cinereous; veins brown. Length of the body 6 lines; of the wings 10 lines.

Gen. CULEX, *Linn.*

4. CULEX VENTRALIS. *Fœm.* Nigricans, pectore argenteo, abdomine subtus fasciis sex argenteo-albis, femoribus argenteo-albidis apice nigricantibus, alis cinereis.

*Female.* Blackish. Rostrum and palpi black, the former slightly bent downward, a little longer than the thorax. Pectus silvery cinereous. Abdomen beneath with six silvery-white bands. Legs long, slender; femora silvery whitish, except towards the tips; tibiæ and tarsi setulose. Wings cinereous; veins blackish, fringed; fork of the subapical vein rather short. Length of the body 4 lines; of the wings 6 lines.

Fam. CHIRONOMIDÆ, *Haliday.*

Gen. CHIRONOMUS, *Meigen.*

5. CHIRONOMUS INSTABILIS. *Mas.* Pallide fuscus, nitens, thorace antice producto vittis duabus nigricantibus, pedibus albidis subpubescentibus, alis lacteis.

*Male.* Pale brown, shining. Eyes deep black. Thorax very prominent in front, with two slender blackish stripes. Legs whitish, long, slender, very minutely pubescent; fore metatarsus almost twice the length of the fore tibia. Wings milk-white; veins white. Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Fam. TIPULIDÆ, *Haliday.*

Gen. LIMNOBIA, *Meigen.*

6. LIMNOBIA PLENIPENNIS. *Mas.* Badia, capite nigro, thorace antice attenuato, abdomine brevi subochraceo apicem versus nigro, femoribus testaceis apice fuscis, alis cinereis luteo variis, vittis tribus deviis nigricantibus, maculis guttisque albis.

*Male.* Chestnut colour, shining. Head, palpi, and antennæ black. Thorax attenuated in front; pectus testaceous in front. Abdomen short, dull ochraceous, black towards the tip, very little longer than the thorax. Legs brown, long, slender; coxæ and femora testaceous, the latter with brown tips. Wings cinereous; basal and subapical parts pale luteous; three irregular blackish stripes; first stripe costal,

terminated by a white transversely elongated blackish-bordered spot ; second including two elongated white spots and two white points, beyond which there are two white blackish-bordered dots ; third paler and diffuse, including one elongated white spot ; a discal areolet ; radial vein not forked ; first externo-medial vein not forked ; no second externo-medial vein ; third externo-medial vein forked ; one veinlet between the third externo-medial vein and the subanal vein, nearer than the discal areolet to the base of the wing ; halteres testaceous, with white knobs. Length of the body 5 lines ; of the wings 14 lines.

7. *LIMNOBIA LATIFASCIA*. *Fem.* Atra, abdomine fascia latissima lutea, femoribus basi luteis, alis nigris fascia latissima lutea, gutta costali alba.

*Female.* Deep black. Abdomen with a very broad pale luteous band, which extends from near the base to much beyond the middle. Femora pale luteous towards the base ; this hue is most prevalent in the fore femora. Wings black, with a very broad pale luteous middle band ; a white costal dot adjoining the exterior black part, and bordered with black on the inner side ; veins like the wings in colour ; halteres black. Length of the body 6 lines ; of the wings 14 lines.

In structure like *L. euchroma*, Journ. Linn. Soc. vol. vi. p. 4.

8. *LIMNOBIA INFIXA*. *Mas.* Testacea, capite nigro, thorace antice attenuato, abdomine longo fasciis nigricantibus, alis cinereis guttis tribus costalibus fusciscentibus.

*Male.* Testaceous. Head, palpi, and antennæ black. Antennæ moniliform, tapering, shorter than half the length of the thorax. Thorax attenuated in front. Abdomen long, with a blackish band along the fore border of each segment, about thrice the length of the thorax. Wings cinereous ; three brownish dots along the costa, the first at the base of the radial vein ; veins black, testaceous at the base ; a discal areolet ; radial vein forked, the forks slightly curved downward ; first externo-medial vein not forked ; one veinlet between the third externo-medial vein and the subanal vein, opposite the base of the discal areolet. Length of the body  $6\frac{1}{2}$  lines ; of the wings 14 lines.

9. *LIMNOBIA CONTINGENS*. *Mas.* Pallide lutea, capite nigro, thorace strigis duabus obliquis vittaque nigris, abdomine segmentorum marginibus apiceque nigris, alis pallide fuscis.

*Male.* Pale luteous, slender. Head black, shining. Thorax in front with a black stripe and two oblique black streaks. Abdomen thrice the length of the thorax, shining towards the base, black and shining towards the tip ; hind borders of the segments black. Wings pale brown ; veins black ; a discal areolet ; radial vein forked ; first externo-medial vein forked, with a petiole between its forks and the discal areolet ; one veinlet between the third externo-medial vein and the

subanal vein, joining the discal areolet near the base of the latter; halteres with black knobs. Length of the body 6 lines; of the wings 12 lines.

10. *LIMNOBIA EXCLUSA*. *Fœm.* Lutea, capite nigro, thorace litura trifurcata guttisque duabus posterioribus nigris, abdomine apice nigro, pedibus nigris femoribus basi luteis, alis limpidis fascia diffusa fuscescente antice nigra postice obsoleta.

*Female.* Luteous, shining. Head, palpi, and antennæ black. Head small, attached to the thorax by a very slender petiole. Palpi elongated. Antennæ moniliform, setaceous, minutely setulose, a little more than half the length of the thorax. Thorax with a trifurcate black mark and with two hinder black dots. Abdomen rather short, with a black tip. Legs black, stout; femora towards the base and coxæ pale luteous. Wings limpid; veins black; costa pubescent, black and incrassated from somewhat before the middle to the tip of the cubital vein; discal areolet long; radial vein and first externo-medial vein not forked; one veinlet between the third externo-medial vein and the subanal vein, joining the discal areolet near the base of the latter; axillary vein undulating; a brownish diffuse band across the base of the discal areolet, obsolete hindward, black towards the costa. Length of the body 4 lines; of the wings 8 lines.

11. *LIMNOBIA TRISIGNATA*. *Fœm.* Flava, capite nigricante, palpis apice nigris, abdomine fascia postica atra, pedibus nigris femoribus basi flavis, alis nigricantibus basi fascia media maculaque discali albis.

*Female.* Pale yellow. Head blackish. Palpi with black tips. Abdomen with a deep black band towards the tip, which is attenuated. Legs black, stout; femora at the base and coxæ pale yellow. Wings blackish, white towards the base, with a white middle band, and with a white discal spot towards the tip; veins black, pale yellow towards the base; discal areolet pentagonal; radial vein and first externo-medial vein not forked; second externo-medial vein much nearer to the first than to the third externo-medial vein; one veinlet between the third externo-medial vein and the subanal vein, joining the discal areolet at somewhat before the middle of the latter; axillary vein slightly undulating; halteres with brown knobs. Length of the body 6 lines; of the wings 12 lines.

Gen. *TIPULA*, *Linn.*

12. *TIPULA PALLIDA*. *Mas.* Pallide testacea, capite postico cinereo, thorace vitta cinerea interlineata postice albido-testaceo, abdomine lutescente basi pallido apice fusco, pedibus longissimis, alis subcinereis venis luteis albo binotatis.

*Male.* Pale testaceous; in structure like *T. infidens*. Head pale cinereous hindward. Antennæ not longer than the palpi. Thorax with an indistinct cinereous interlined stripe; hind part whitish testaceous.

Abdomen dull luteous, pale at the base, brown at the tip. Legs very long. Wings long, slightly cinereous; veins luteous, with two white marks, one on the veinlets near the base, the other on the veinlets in front of the discal areolet; stigma testaceous; halteres with brownish knobs. Length of the body 12 lines; of the wings 32 lines.

Gen. PACHYRHINA, *Macq.*

13. PACHYRHINA TENUIS. *Mas.* Flava, capitis vitta palpis apice antennis thoracis disco abdomineque nigris, abdomine fasciis quatuor angustis flavis fasciaque subapicali lata flavescente, pedibus fulvescentibus tarsis nigris, alis subcinereis.

*Male.* Pale yellow, slender. Head with a black discal stripe. Palpi black towards the tips. Antennæ black, except at the base. Disk of the thorax black, with the exception of a short oblique yellow streak on each side in front. Metathorax black. Abdomen black, with four narrow pale yellow bands; a broad yellowish subapical band. Legs slender, dull pale tawny; tibiæ darker than the femora; tarsi black. Wings slightly cinereous; veins black; stigma brown; halteres with blackish knobs. Length of the body 7 lines; of the wings 14 lines.

Fam. STRATIOMIDÆ, *Haliday.*

Gen. CLITILLARIA, *Meigen.*

14. CLITILLARIA RESPONSALIS. *Fam.* Nigra, antennis articulo 3<sup>o</sup> intus albo, thorace cinereo tomentoso vitta dorsali maculisque quatuor nudis, abdomine vitta postica maculisque quatuor trigonis argenteis, femoribus lividis apice nigris, tibiis tarsisque posterioribus albidis apice nigris, alis cinereis, halteribus albidis.

*Female.* Black. Head with silvery cinereous tomentum in front and about the eyes. Antennæ nearly as long as the breadth of the head; third joint white on the inner side. Thorax covered with cinereous tomentum, excepting a dorsal stripe and two spots on each side. Abdomen with a short hindward silvery stripe, and with two triangular silvery spots on each side. Femora livid, except towards the tips; posterior tibiæ and tarsi whitish, with black tips. Wings cinereous; veins black; halteres whitish. Length of the body 5 lines; of the wings 8 lines.

This species is closely allied to *C. bivittata*, from which it may be distinguished by its smaller size, its broader antennæ, the narrower stripe and smaller spots of the thorax, and the wings without any blackish tinge.

Gen. STRATIOMYS, *Geoffr.*

15. STRATIOMYS ATRARIA. *Mas et Fam.* Atra, antennis basi fulvis,

scutello spinis piceis, abdominis lateribus rufescentibus, tibiis tarsisque fulvis apice nigris, alis cinereis basi luridis striga costali nigra, halteribus testaceis.

*Male and Female.* Deep black, dull. Antennæ tawny towards the base, much shorter than the breadth of the head. Scutellum with two piceous spines. Abdomen reddish along each side. Tibiæ and tarsi tawny, the latter with black tips. Wings cinereous, with a lurid tinge towards the base; a black streak along the middle part of the costa; veins black; halteres testaceous. *Female.* Head shining. Length of the body 4 lines; of the wings 7 lines.

16. STRATIOMYS PARALLELA. *Mas.* Nigra, antennis basi rufescentibus, thorace vittis quatuor, scutelli margine postico pectorisque maculis quatuor albidis, abdomine fulvo vitta dorsali lata nigra basi dilatata, genibus tarsisque fulvis, alis limpidis, halteribus albidis.

*Male.* Black. Head reddish on each side of the mouth. Antennæ with the first and second joints reddish; scape lanceolate, a little longer than the first and second joints together. Thorax with four whitish slender stripes; hind border of the scutellum whitish, with two whitish spines; pectus with two whitish spots on each side. Abdomen tawny, with a broad black dorsal stripe, which is dilated at the base on each side. Tarsi, except towards the tips and knees, tawny. Wings limpid; veins pale tawny; halteres whitish. Length of the body 6 lines; of the wings 9 lines.

Gen. SARGUS, *Fabr.*

17. SARGUS FORTIS. *Mas.* Niger, antennis testaceis, scutelli margine postico spinisque quatuor albis, pedibus albidis, tibiis tarsisque anticis nigricantibus, femoribus tibiisque posterioribus piceis, alis cinereis apice nigricantibus, halteribus albidis apice nigris.

*Male.* Black, shining; closely allied to *S. tenuis*. Antennæ pale testaceous; third joint round; arista black, very slender, about twice the length of the antennæ. Thorax a little narrower in front; scutellum prominent, with a white hind border and with four white spines. Abdomen rather longer than the thorax. Legs whitish; fore tibiæ and fore tarsi blackish; posterior femora and tibiæ piceous, except towards the base; posterior tarsi with black tips. Wings cinereous, blackish towards the tips, this hue darkest and most extensive along the costa; veins black, whitish at the base; halteres whitish, with black tips. Length of the body  $4\frac{1}{2}$  lines; of the wings 8 lines.

Gen. RUBA, *Walk.*

18. RUBA OPPONENS. *Mas.* Testacea, antennis nigris basi testaceis, abdomine nigro, tarsis anterioribus piceis, tarsis posticis nigris, alis nigricantibus postice fuscis, halteribus testaceis.

*Male.* Testaceous, with pale pubescence. Antennæ shorter than the

breadth of the head; scape black. Abdomen black, with whitish pubescence, rather longer and much broader than the thorax. Anterior tarsi piceous, except towards the tips; hind tarsi black. Wings blackish, brown hindward; veins black; halteres testaceous. Length of the body 3 lines; of the wings 6 lines.

Fam. TABANIDÆ, *Leach.*

Gen. PANGONIA, *Latr.*

19. PANGONIA CALIGINOSA. *Fam.* Piceo-nigra, capite subtus pectoreque albido pilosis, proboscide thoracis longitudine, antennis rufescentibus apice nigricantibus, alis nigricantibus maculis duabus discalibus cinereis.

*Female.* Piceous black. Head beneath and pectus thickly clothed with whitish hairs. Proboscis as long as the thorax. Palpi piceous. Antennæ reddish, lanceolate, curved upward, piceous at the base, blackish at the tips. Thorax with a line of black hairs along each side. Abdomen oval, longer and broader than the thorax; hind borders of the segments piceous. Wings blackish, cinereous towards the hind border, with two elongated paler cinereous discal spots; veins black; fore branch of the cubital vein slightly curved, forming a slightly obtuse angle at its flexure, from whence it emits a short branch. Length of the body 6 lines; of the wings 16 lines.

Gen. TABANUS, *Linn.*

20. TABANUS COHÆRENS. *Fam.* Piceus, antennis ochraceis apice nigris, abdomine fulvo apice nigricante segmentorum marginibus posticis vittaque testaceis, pedibus fulvis, tarsis posterioribus femoribusque anticis piceis, tibiis anticis apice tarsisque anticis nigricantibus, alis cinereis apud costam fusciscentibus.

*Female.* Piceous; closely allied to *T. serus*. Head, thorax, and pectus with hoary tomentum. Head with a slender piceous callus which is dilated in front. Antennæ ochraceous, piceous at the base, black towards the tips; third joint with a very small horn. Abdomen tawny, blackish towards the tip; hind borders of the segments testaceous, this hue most apparent on the hinder segments; a dorsal testaceous stripe, which is slightly dilated hindward, and is obsolete at the base and at the tip. Legs tawny; coxæ hoary; posterior tarsi, except at the base, and fore femora piceous; fore tibiæ towards the tips and fore tarsi blackish. Wings cinereous, brownish along the costa; veins black, tawny at the base; fore branch of the cubital vein almost straight, forming an obtuse and rounded angle at its flexure; halteres testaceous. Length of the body 7 lines; of the wings 14 lines.

21. TABANUS PAPOUINUS. *Mas.* Piceus, antennis rufescentibus apice nigris, thorace cinereo tomentoso, abdomine fusco basi fulvo segmen-